DHI-IVSS7008

2U 8HDDs Intelligent Video Surveillance Server

· Industry embedded micro-controller

· Max 512Mbps incoming bandwidth

· 128-channel IP video access

· Supports RAID 0/1/5/6/10/50/60

· 3 HDMI/2 VGA video output

System Overview

Dahua IVSS goes beyond the ordinary NVR products. It is an Intelligent Video Surveillance Server that combines video management features with traditional video storage functions in one device. Besides the basic functions as a network video recorder, IVSS is integrated with features such as face detection and face recognition for different business and industrial applications.

An all new UI design supports device operation and maintenance management, improving the value and experience of surveillance view, and serving the era of security big data.

Functions

Face Recognition (with AI camera)

Supports real-time Face Detection & Recognition (with AI camera). Shows real-time face detection and recognition results from AI camera. Records faces with video metadata. Facial features are filtered during real-time display, so as to show only faces with target features. Facial features include gender, age, expression, and more. The linkage actions for face detection and recognition events are configurable, including alarm, buzzer, snapshot, video recording, and more.

AI IVS (with AI camera)

With deep learning algorithm, AI IVS technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, parking detection, loitering detection and crowd gathering estimation) are largely reduced.

Video Metadata (with AI camera)

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Currently, there are four main kinds of metadata in the security industry: Human face, human body, and motor vehicle, non-motor vehicle metadata.

ANPR

Automatic Number Plate Recognition available for convenient entrance/exit management. This feature provides number plate recognition (working with Dahua ITC camera), number plate comparison with blocklist/allowlist, vehicle database management, and vehicle record search.

N+M Hot Standby

The highly reliable redundancy N+M Hot Standby design provides a secure failover technique to ensure immediate backup. In the event of a system failure, the sub device instantly takes over the main device to ensure no data loss.

Fisheye Dewarp

Supports multiple fisheye dewarp modes to make viewing video easy whether it is live or during playback.

Smart Tracking

The automatic tracking PTZ feature automatically tracks a moving target throughout the camera's field of view. This function is ideal for following an object as it moves through airports, parking lots, city centers, or other scenes.

Technical Specification

System

Main Processor	Industry embedded micro-controller
Operating System	Embedded Linux OS
Operation Interface	WEB (PCAPP), local GUI

AI Applications

AI by Camera	Face detection, face recognition, video metadata, IVS (tripwire, intrusion, abandoned object, missing object, fast moving, parking detection, crowd gathering, loitering,parking, and fence-crossing), people counting, smoking detection, call detection

IVS

Perimeter Function (AI by Camera)	64-channel

Human Face Detection

Human Face Properties	Supports 6 properties: Gender, age range (6-level), glasses, expression (8 types), mouth mask, and beard
Face Detection Performance (AI by Camera) (Channel Number)	64-channel

ANPR

Plate Database Capacity	Max. 50 plate databases with 3 hundred thousand plate numbers in total. Supports allowlist and blocklist
Plate Detection Performance	32-channel

Video Metadata

Human Body Properties	Gender, age, sleeves length, top color, bottom type, bottom color, bag, rain coat, umbrella, hat, hairstyle, direction, hold a baby, mouth mask
Vehicle Properties	Vehicle type, vehicle color, plate color, logo, calling, seatbelt, ornament, region
Non-motor Vehicle Properties	Non-motor vehicle type, non-motor vehicle color, number of passengers, umbrella, rain coat, bag , sleeve length, top color, hat, hair style, mouth mask
Metadata Performance (AI by Device) (1080P) (Channel Number)	N/A
Metadata Performance (AI by Camera) (Channel Number)	32-channel

Video Parameters

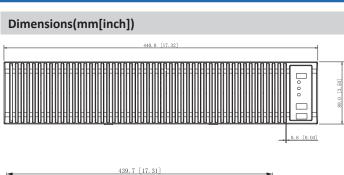|	
Remote Connection	128
Network Bandwidth	Incoming bandwidth: 512Mbps. Recording bandwidth: 400Mbps. Outgoing bandwidth: 512Mbps
Resolution	24MP/16MP/12MP/8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/D1/CIF/QCIF

Decoding Capability	1-channel 24MP/2-channel 16MP/5-channel 12MP (20fps)/6-channel 12MP (15fps)/5-channel 8MP (30fps)/10-channel 8MP (15fps)/6-channel 6MP(30fps)/8-channel 5MP(30fps)/9-channel 5MP (25fps)/10-channel 4MP (30fps)/15-channel 4MP (20fps)/16-channel 3MP (25fps)/10-channel 1080P (60fps)/20-channel 1080P (30fps)/30-channel 720P (30fps)
Video Output	2-channel VGA output, 3-channel HDMI output, VGA 1/HDMI 1 outputs the same video source. VGA2/HDMI2 outputs the same video source. Supports 4K output
Multi-screen Display	Customized display. Max. 36-channel local live view. Max.16-channel PCAPP live view
Third-party Support	Onvif, RTSP, Sony, Panasonic, Axis, Arecont, Pelco, Canon, Samsung

Compression

Video Compression	Smart H.265+/Smart H.264+/H.265/H.264
Audio Compression	G.711A/G.711U/PCM/G726

Network

Protocol	HTTP, HTTPS, TCP/IP, IPv4, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, P2P
Mobile Phone	DMSS
Interoperability	ONVIF(Profile S, T and G), CGI, SDK
Browser	Chrome, PCAPP, IE9 or higher, Firefox
Network Mode	NIC binding mode such as multiple-address mode, load balance, fault-tolerance, etc

Record Playback

Multiple-channel Playback	Max. 16-channel playback
Record Search	Search video detection/manual record/IO alarm/intelligent event/all record file
Storage Medium	Internal HDD
Backup Method	HDD, peripheral USB storage device
Playback Function	1. Play/pause/stop/fast forward/fast backward/reverse play/frame by frame play. 2. Full-screen, backup (clip/file), snapshot, digital zoom, audio on/off

Storage

HDD Group	8
RAID	RAID0/1/5/6/10/50/60
Storage Pool	N/A

Alarm

General Alarm	Motion detect, tampering, local alarm
Anomaly Alarm	IPC offline alarm, storage error, HDD full, IP conflict, MAC conflict, login lock, fan malfunction
Intelligent Alarm	Human face detection, human face recognition, video metadata (person/vehicle/non-motor vehicle), IVS, plate recognition, people counting, smoking, call
Alarm Linkage	Record, picture storage (full image), local external alarm output, IPC external alarm output, access & control, audio prompt, buzzer, log, preset, email

Peripheral Interface

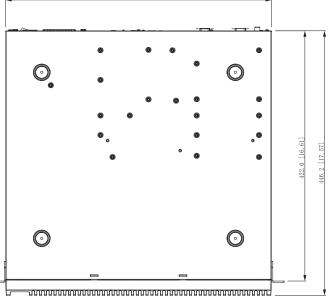|	
Audio Input	1-channel, RCA port (reserved)

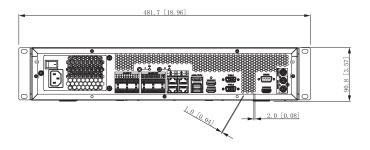|	
Audio Output	2-channel, RCA port , speaker output, audio linkage output
Alarm Input	16-channel
Alarm Output	8-channel
Internal HDD	8 slots, SATA3.0. Max.16T/HDD
eSATA	1 port
SAS	N/A
RS-232	1 port, for debug or transparent COM data
RS-485	1 port, control peripheral PTZ and so on. Supports various protocols
USB	4 ports. 2 USB2.0 port at the front panel and 2 USB3.0 port a the rear panel
HDMI	3 ports; support 4K output
VGA	2 ports
Network	4 RJ-45 10/100/1000Mbps self-adaptive Ethernet ports
Power	1 port
PoE	N/A

General Parameters

Power Supply	100V AC–240V AC 50-60Hz
Power Consumption	40W (without HDD, idling) 136W (all HDDs connected)
Net Weight	8.55 Kg (18.85 lb)
Gross Weight	10.9 Kg (24.03 lb)
Dimensions	Chassis: 439.7 mm × 446.2 mm × 89 mm (17.31 " × 17.57 " × 3.50 ") Max. size: 481.7 mm (with hanger) × 446.2 mm × 90.8 mm (with feet mat) (18.96 " × 17.57 " × 3.57 ")
Packaging Dimensions	With Packaging: 562 mm × 599 mm × 235 mm (22.13 " × 23.58 " × 9.25 ") Protection box: 491 mm × 584 mm × 631 mm (19.33 " × 22.99 " × 24.84 ")
Operating Temperature	0 °C to +45 °C (+32 °F to +113 °F)/10%RH–90% RH
Storage Temperature	0 °C to +40 °C (+32 °F to +104 °F)/30%RH–85% RH
Operating Humidity	10%–90%
Storage Humidity	30%–85%
Operating Altitude	5000 m (16404.20 ft)
Installation Mode	Desktop/rack
Certifications	CE: CE-LVD: EN 60950-1/IEC 60950-1 CE-EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 50130, EN 55024 FCC: Part 15 Subpart B UL 60950-1

Dimensions(mm[inch])